

Abstract

A method for using an alternate performance test to reduce test time and improve manufacturing yield. The method comprises establishing a specification test limit within which a product would be accepted under specification test criteria and inner and outer alternate test error bounds relative to the specification test limit; initially testing the product with the alternate test; accepting the product if the alternate test result is within the inner alternate test error bound; rejecting the product if the alternate test result is outside the outer alternate test error bound; and retesting the product using the specification test if the alternate test result is on or between the alternate error bounds. On retesting, the product is ordinarily rejected if the specification test result is outside the specification test limits. The method may further comprise modifying a production test to produce a specification test whose guardband is narrower than the production test. The alternate test may provide a reduction of test time from that required by the specification test, and may be a signature test. The method can be used where the acceptability parameter value distribution for the product is peaked, and the specification test has upper and lower test limits.